

WHAT WE CLAIM IS:

1. A method of producing a semiconductor storage device comprising:
forming memory cell transistors and peripheral circuit transistors;
depositing an insulation layer and a hydrogen diffusion preventing layer;

forming a first connecting plug connected to said memory cell transistors and peripheral circuit transistors;

forming a second plug of a hydrogen diffusion inhibiting layer;

forming a capacitor comprised of a first electrode, a high dielectric constant film or a ferroelectric film, and a second electrode; and

forming a hydrogen adsorption inhibiting layer.
2. A method of producing a semiconductor storage device according to claim 1, wherein the first plug is comprised of any one of titanium nitride or polycrystalline silicon.
3. A method of producing a semiconductor storage device according to claim 1, wherein the second plug is comprised of any one of iridium oxide, ruthenium oxide, osmium oxide, platinum oxide or a mixture thereof.
4. A method of producing a semiconductor storage device according to claim 1, wherein the hydrogen adsorption inhibiting layer is comprised of any one of silver, aluminum, lead, bismuth, gold, zinc, cadmium, indium, germanium and tin.